

PaxScan® 4030CB Receptor, Command Processor, and Power Supply. Fiber optic cable not shown.

Product Description

The PaxScan® 4030CB is specifically designed to meet the needs of Cone Beam X-ray imaging applications featuring multiple sensitivity ranges and extended dynamic range modes. The main system components are the 40 x 30cm 194µm-pixel amorphous silicon FPD, real-time image and command processor, and universal dual-output power supply. Excellent low-dose performance is achieved by combining Varian’s proprietary readout electronics with the high sensitivity of a custom Cesium Iodide scintillator. A Windows®2000 based application program and a communications command (DLL) library has also been developed to assist OEM customers tasked with developing their own system interface. This imager is intended for incorporation into a complete X-ray system by a qualified equipment manufacturer.

Receptor Type	Amorphous Silicon	Signal Capacity	>50,000,000 electrons per pixel
Conversion Screen	Integral columnar CsI:Tl	Lag	<16% (first frame, 30 fps, 2x2 bin mode) <5% (first frame, 7.5 fps, 1x1 bin mode)
Pixel Area - Total	397 mm (h) x 298 mm (v) (15.6 x 11.7 in)	Gamma	1
Pixel Matrix - Total	2,048 (h) x 1,536 (v)	Scan Method	Progressive
Pixel Pitch	194 µm	Data Output	High-speed serial
Limiting Resolution	2.58 lp/mm @ 7.5 FPS (1x1) 1.29 lp/mm @ 30 FPS (2x2)	A/D Conversion	14-bits
MTF, X-Ray	>45% (1.0 lp/mm at 80 kVp, 1x1)	Dual/Dynamic Gain Modes, Effective resolution	>16-bits
DQE (0), Quantum-Limited	>60%	Non-Uniformity	1% maximum
Energy Range	40 - 150 kVp	Inactive Lines	≤ 9 total rows and columns, minimum separation 16 lines
Fill Factor	70%	Inactive Pixels	No inactive visible pixels after interpolation
Dynamic Range (saturation-to-noise)		Maximum Entrance Dose/Frame Gain-1	4,000 µR
Dual/Dynamic Gain Modes	18,000 : 1	Cooling	Passive convection
Full-Resolution Modes	3,000 : 1	Radiation Tolerance	1MRad (active area), 10 kRad (electronics)
Fluoro Modes	1,500 : 1	Lead Barrier Cap	Optional
Spectral Response	400-700 nm; 550 nm peak		
Contrast Ratio	Large Area (120 mm): < 0.8% Small Area (10 mm): < 7%		

Image Acquisition Modes (Current)

High-Sense Fluoro:	1024 (h) x 768 (v) 30 fps Gain-4 0.5 pF
Normal Fluoro:	1024 (h) x 768 (v) 30 fps Gain-2 0.5 pF
High-Sense Full-Resolution:	2048 (h) x 1536 (v) 7.5 fps Gain-2 0.5 pF
Dual Gain High Range:	1024 (h) x 1536 (v) 15 fps Gain-1 0.5/4 pF
High-Dose Full-Resolution:	2048 (h) x 1536 (v) 7.5 fps Gain-2 4 pF
Additional Modes:	Consult Varian Medical Systems, Inc.

Image Acquisition Modes (Digital Board 2.0 with Dynamic-Gain readout required)

Dynamic Gain	1024 (h) x 768 (v)
High Range:	30 fps Gain-1 0.5 pF

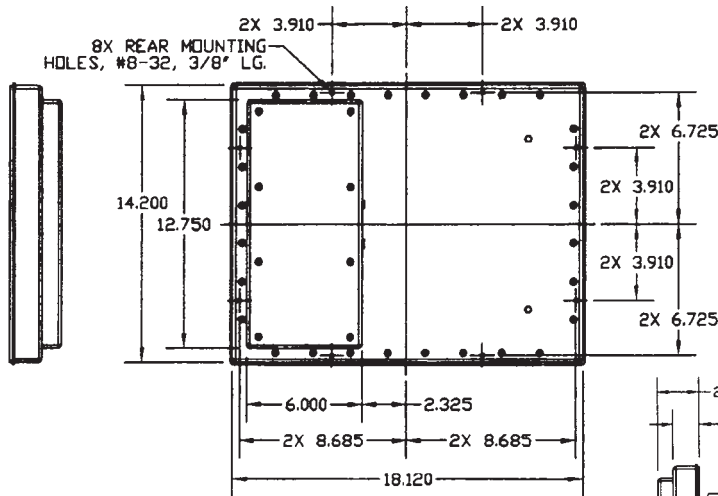
Mechanical

Size: cm (inches)	466 x 366 x 68.5cm (l x w x h)
Weight:	10.9 kg panel only 20.8 kg panel with lead primary barrier.
Housing Material:	Aluminum
Sensor Protection:	Carbon fiber plate 2.5 mm thick plus 0.25 mm thick aluminum plate.
Mounting Provisions:	Blind, threaded mounting holes front and back.

Environmental

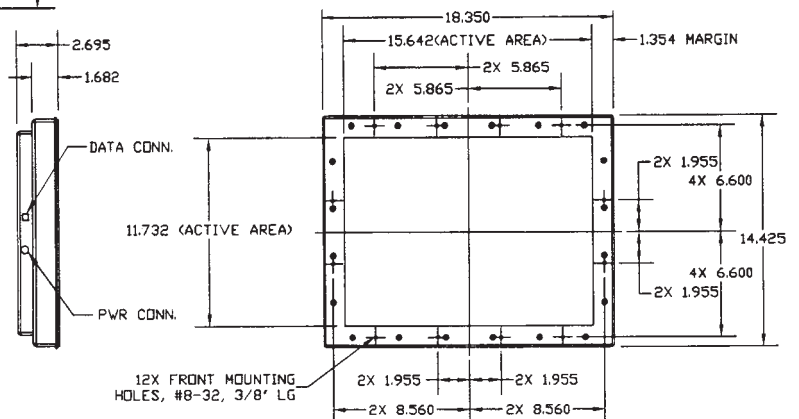
Temperature Limit:	10-35°C case temperature
Relative Humidity:	10-90% Non-Condensing
Shock Tolerance:	20G (any direction no power applied)

Rear View



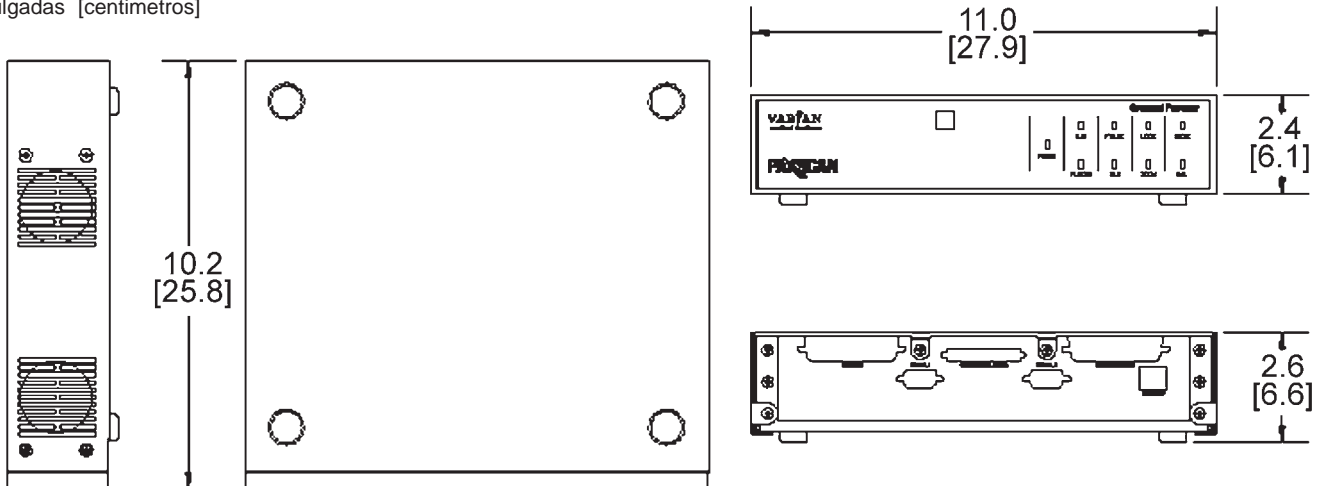
Dimensions are in inches

Front View

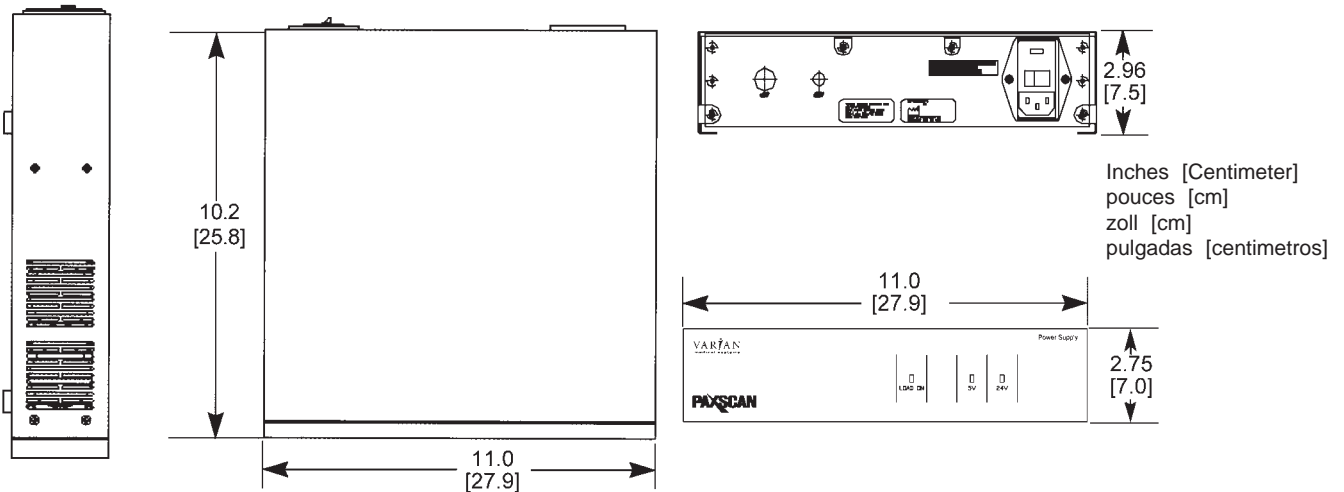


Command Processor	Processeur de commande	Befehl Prozessor	Procesador de comandos
<p>Mechanical</p> <p>Size 6.17 x 27.9 x 25.8 cm (h x w x d) (2.43 x 10.98 x 10.16 inches)</p> <p>Weight 2.6 kg (6 lb)</p> <p>Mounting Bench; mounting holes front and rear faces. 1/4-20 thread, 0.79 (0.31") min</p> <p>Control Interfaces (Ports)</p> <p>1-Ethernet 10BaseT, 2-Serial RS-232C 12-opto-coupled inputs, 12-open-collector outputs</p> <p>Protocols</p> <p>Ethernet TCP/IP Sockets Serial AIA A15.08/7</p> <p>Connectors</p> <p>Ethernet RJ-45 Serial ... 9-pin D-subminiature (2) I/O 50-pin D-subminiature</p> <p>Digital Video Output .. 50-pin SCSI-2 14-bit parallel image data, Pixel clock, Data valid, H Sync, V Sync</p>	<p>Caractéristiques mécaniques</p> <p>Taille 6,17 x 27,9 x 25,8 cm (h x l x p) (h x l x p)</p> <p>Poids 2,6 kg</p> <p>Fixation - Trous de fixation sur table, panneaux avant et arrière. Filetage 1/4-20, 0,79 cm min.</p> <p>Interfaces de commande (Ports)</p> <p>1 Ethernet 10BaseT, 2 série RS-232C 12-opto-coupled entrées, 12 sorties de collecteur ouvert</p> <p>Protocoles</p> <p>Ethernet interfaces logiques spécifiques TCP/IP Série AIA A15.08/7</p> <p>Connecteurs</p> <p>Ethernet RJ-45 Série: D ultraminiaturisé à 9 broches (2) E/S - ltraminiaturisé à 50 broches</p> <p>Sortie video numerique SCSI-2, 50 broches Données image 14 bits parallèle, horloge pixels, validation données, Sync H, Sync V</p>	<p>Mechanische Daten</p> <p>Größe 6,17 x 27,9 x 25,8 cm (HxBxT)</p> <p>Gewicht 2.6 kg</p> <p>Halterung Tisch: Montagelöcher vorne und hinten. 1/4-20 Gewinde, 0,79 cm mindesttiefe</p> <p>Steuerschnittstellen Schnittstellen)</p> <p>1-Ethernet 10BaseT 2 serielle RS-232C 12 optogekoppelte Eingänge, 12 offenem Kollektor Ausgänge</p> <p>Protokolle</p> <p>Ethernet TCP/IP-Steckplätze Seriell AIA A15.08/7</p> <p>Anschlüsse</p> <p>Ethernet RJ-45 Seriell 9-poliger SUB-D (2) E/A 50-poliger SUB-D</p> <p>Digitaler Videoausgang 50-poliger SCSI-2 14-Bit parallele Bilddaten, Pixeltakt, Daten gültig, H-Sync, V-Sync</p>	<p>Caractéristiques mécaniques</p> <p>Tamaño 6,17 x 27,9 x 25,8 cm (altura, ancho y prof.)</p> <p>Peso 2,6 kg</p> <p>Montaje Sobre banco, orificios de montaje sobre caras frontal y trasera, 1/4-20 diámetro de rosca, 0,79 mínimo</p> <p>Interfaces de control Puertos</p> <p>1 Ethernet 10Base T 2 Serie RS-232C 12 entradas de acople óptico, 12 salidas de colector abierto</p> <p>Protocolos</p> <p>Ethernet Enchufes TCP/IP Serie AIA A15.08/7</p> <p>Conectores</p> <p>Ethernet RJ-45 Serie subminiatura D de 9 patillas (2) E/S - subminiatura D de 50 patillas</p> <p>Salida digital de vídeo SCSI-2 de 50 patillas Datos de imagen paralela de 14 pixeles, reloj Pixel, Datos válidos, Sincronización H, Sincronización V</p>

Inches [Centimeter]
pouces [cm]
zoll [cm]
pulgadas [centimetros]



<p>Power Supply</p> <p>Power Input 85-250 Vac; 47-63 Hz</p> <p>Rating 5.5 A max @ 120 Vac, 60 Hz</p> <p>Size 7.0 x 27.9 x 25.9 cm (2.75 x 10.98 x 10.16 inches) (h x w x d)</p> <p>Weight 3.4kg (8 lb)</p> <p>Mounting: Bench; stack on command processor. Rack mount adapter optional.</p>	<p>Bloc d'alimentation</p> <p>Entrée alimentation: 85-250 V c.a. 47-63 Hz</p> <p>Évaluation: 5,5 A max @ 120 Vac, 60 Hz</p> <p>Taille ... 7,0 x 27,9 x 25,9 cm (h x l x p)</p> <p>Poids 3,4 kg</p> <p>Montage: Paillasse; superposition sur processeur de commande. Adaptateur de montage sur baie optional.</p>	<p>Stromversorgung</p> <p>Stromeingang: 85-250 VAC; 47-63 Hz</p> <p>Leistung: 5,5 A max @ 120 Vac, 60 Hz</p> <p>Abmessungen 7,0 x 27,9 x 25,9 cm (h x b x t)</p> <p>Gewicht 3,4 kg</p> <p>Montage: Tisch, stapelbar auf Befehlsprozessor. Rack-montage-Adapter optional.</p>	<p>Fuente de alimentación</p> <p>Entrada de energía eléctrica: 85-250 V.c.a; 47-63 Hz</p> <p>clasificación: 5,5 A max @ 120 Vac, 60 Hz</p> <p>Tamaño 7,0 x 27,9 x 25,9 cm (altura, ancho y prof.)</p> <p>Peso 3,4 kg</p> <p>Montaje: Banco de ensamblado; columna en el procesador de comandos. Opción: adaptador del bastidor soporte.</p>
<p>Cables</p> <p>Receptor to Command Processor: 8.5 m (28 ft.) 30.0 m (98 ft.) 35.0 m (115 ft.) 40.0 m (130 ft.) 45.0 m (148 ft.) 70.0 m (200 ft.)*</p> <p>*Requires additional power supply</p> <p>Power Supply to Command Processor 0.30 m (1 ft.)</p>	<p>Câbles</p> <p>Récepteur - Processeur de Commande: 8,5 m 30,0 m 35,0 m 40,0 m 45,0 m 70,0 m*</p> <p>* Exige l'alimentation d'énergie additionnelle</p> <p>Bloc d'alimentation-Processeur de Commande 0,30 m</p>	<p>Kabel</p> <p>Bildempfänger zum Befehls Prozessor: 8,5 m 30,0 m 35,0 m 40,0 m 45,0 m 70,0 m*</p> <p>* Erfordert zusätzliches Stromversorgungsmodul</p> <p>Stromversorgungsmodul zum Befehls Prozessor 0,30 m</p>	<p>Cables</p> <p>Receptor al Procesador de Comandos: 8,5 m 30,0 m 35,0 m 40,0 m 45,0 m 70,0 m*</p> <p>* Requiere la fuente de alimentación adicional</p> <p>Fuente de alimentación al Procesador de Comandos 0,30 m</p>



<p>VARIAN medical systems</p>	<p>X-RAY PRODUCTS</p>
<p>Salt Lake City, UT Charleston, SC</p>	<p>1-801-972-5000 1-843-767-3005</p>
<p>www.varian.com</p>	